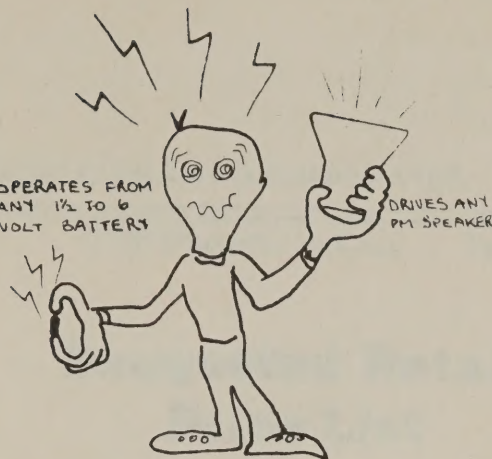


INSTRUCTIONS FOR USE

OPERATES FROM
ANY 1½ TO 6
VOLT BATTERY

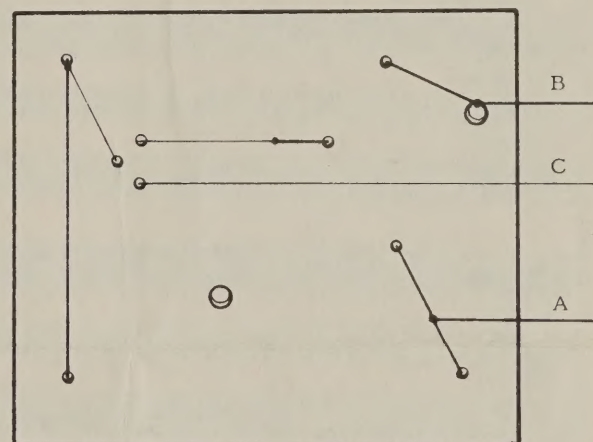
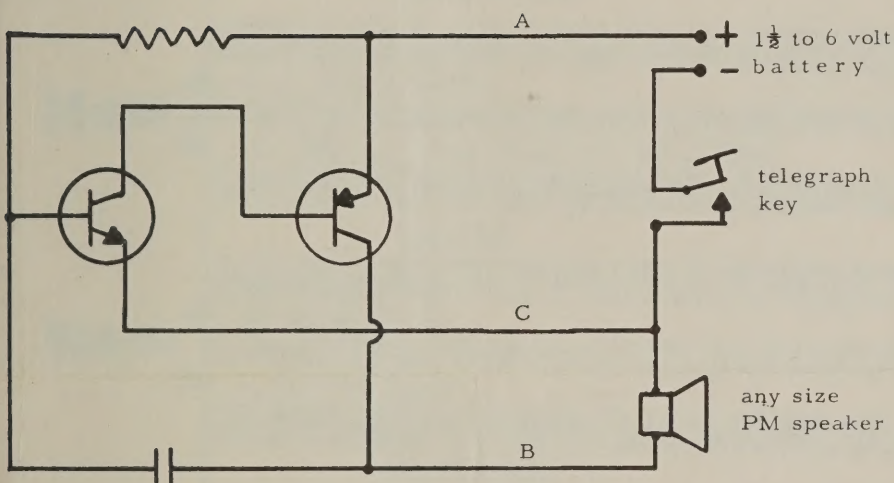


DRIVES ANY
PM SPEAKER

CORDOVER SOLID STATE MODULES

MADE IN U.S.A.

CODE OSCILLATOR MODULE CPO-4



SCHEMATIC DIAGRAM

CIRCUIT BOARD - REAR VIEW

CONNECTION INSTRUCTIONS:

1. Connect A to battery positive.
2. Connect B to any speaker terminal.
3. Connect C to other speaker terminal and also to one telegraph key terminal.
4. Connect other telegraph key terminal to battery negative.

NOTE:

For maximum efficiency use 3 volts (two 1-1/2 volt batteries in series).

Volume may be increased by using higher voltage battery up to 6 volts.

CAUTION:

Make sure to use correct battery polarity as in connection instructions above, as reverse connection may damage transistors.

Suggested Retail Price List

EFFECTIVE NOVEMBER 1, 1977

AMPLIFIERS		SUGGESTED RETAIL
New →	MLA 2500 Amplifier (with Built-in Power Supply)	\$799.50
	MLA 1200 Amplifier	399.50
	AC-1200 / AC Power Supply for MLA-1200	159.50
	DC-1200 / DC Power Supply for MLA-1200	199.50
	160-10L/572 Amplifier (with Built-in Power Supply)	574.50
TUNERS		
New →	MT 3000A Tuner	349.50
	MT 2000A Tuner	199.50
	160-10AT Super Tuner	129.50
	Jr. Monitor Tuner	79.50
	80-10AT 80-10 Meter Tuner	59.50
ANTENNAS		
New →	Trim Tenna '20' 20 Meter Beam	129.50
	160-40 V Vertical Antenna "Sky Claw"	79.50
	4 V Vertical Antenna "Sky Master" (40-10 meters)	84.50
	80-4VR 80 Meter Resonator for 4V	29.50
	EX-1 Vertical Experimenter full ¼ wave - 40-10 meter self-supporting mono vert.	59.50
	160M Mobile Antenna "Mobile Top Bander" (160 meters)	59.50
	Center Feed All Band Doublet Antenna	24.50
ACCESSORIES		
New →	Big Dummy with coolant	29.50
	W-2 Wattmeter	99.50
	160 XV Transverter "Top Bander"	249.50
	160 XV MARS Dual Band	279.50
	100 ft. 470 Ohm Ladder Line	12.00
	100 ft. 2kw 300 Transmission Line	19.50
	1 Kilowatt Balun 4:1 Chassis Mt.	27.50
	3 Kilowatt Balun 4:1 Chassis Mt.	29.50
TO BE ANNOUNCED		
DTR-1 Transceiver		Estimated 549.50
DTR-2 Transceiver		Estimated 949.50

STEP UP TO TELREX

Professionally Engineered Antenna Systems

Single transmission line "TRI-BAND® ARRAY"

MONARCH
TB5EM/4KWP

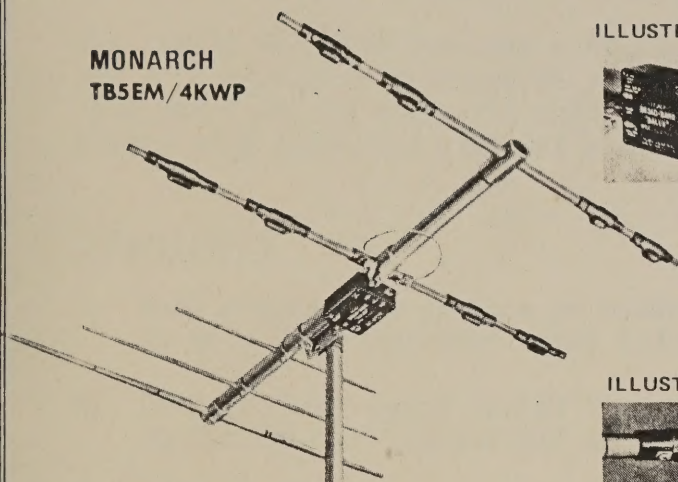
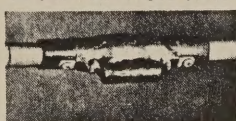


ILLUSTRATION BALUN



ILLUSTRATION TRAP



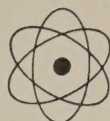
By the only test that means anything... on the air comparison... this array continues to outperform all competition... and has for two decades. Here's why... Telrex uses a unique trap design employing 20 HiQ 7500V ceramic condensers per antenna. Telrex uses 3 optimum-spaced, optimum-tuned reflectors to provide maximum gain and true F/B Tri-band performance.

For technical data and prices on complete Telrex line, write for Catalog PL 7

COMMUNICATION
SYSTEMS
SINCE 1921

telrex Laboratories

ASBURY PARK, NEW JERSEY 07712 U.S.A.



Radio-
Controlled
Quartz
Crystal
Movement

ULTIMATE ACCURACY!

This amazing timepiece solves the problem of absolute accuracy that is so necessary in modern communications.

Each clock contains a solid state radio receiver... constantly tuned to the National Bureau of Standards' station WWV. Periodically the clock hears a signal that triggers the up-dating mechanism, correcting any minor deviation of the second hand.

The clock is also equipped with battery stand-by power. Line power surges, brown-outs, and power failures have no effect on the clock. Available now for \$237.50.*

RADIO TIME SERVICE

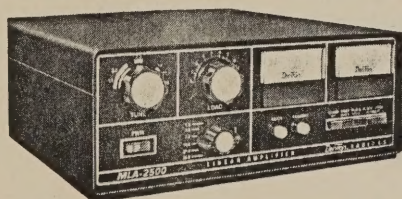


INCORPORATED

P.O. Box 6613
Tucson, Arizona 85733
Phone: (602) 297-4433

*Volume discounts for multiple orders

The New *DenTron* MLA-2500 linear amplifier

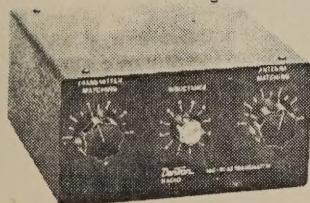


\$799.50

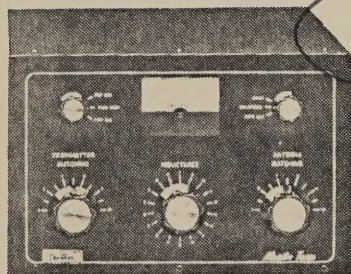
Call or write us for all DenTron products

Match everything from 160 to 10

SuperTuner



1 KW MODEL \$129.50
3 KW MODEL \$229.50



BRUCE

\$299.50

NEW: The Monitor Tuner was designed because of overwhelming demand. Hams told us they wanted a 3 kilowatt PEP tuner with a built-in wattmeter, a front panel antenna selector for coax, balanced line and random wire. So we engineered the 160 10m Monitor Tuner. It's a lifetime investment at \$299.50.

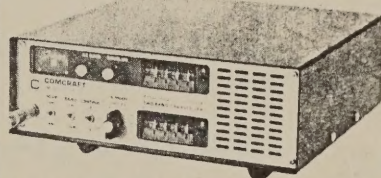
KRYDER ELECTRONICS

P.O. BOX 652 FORT WAYNE, INDIANA 46801

AC 219 / 484-4946

SAVE \$200

Regular \$869 - Now Only \$669.



COMCRAFT CTS-50 2 & 1 1/4M VHF Transceiver. 12 v, 25 w, FM (rcvr. FM - AM), Synthesized (No Crystals to buy). Covers 142.000 to 149.995 Mhz & 220.00 to 225 Mhz in 5 KHz steps. Built-in repeater offsets of 600 KHz, 1 Mhz and 1.6 Mhz. 10 1/2" w x 3 3/4" h x 10" d. PTT microphone and mobile mount included. Quantity Limited.

CPS-5 AC Supply..... \$139.95
Extra DC Cord..... 34.95
Extra DC Cord..... 3.95

AMATEUR ELECTRONIC SUPPLY

4828 West Fond du Lac Avenue
Milwaukee, Wisconsin 53216

Phone (414) 442-4200

Branch Stores in:

Cleveland, Ohio & Orlando, Florida

RADIO TELETYPE EQUIPMENT

Teletype Models 35, 33, 32, 29, 28 ASR, 28 KSR, 28 LPR, 28 LRX Reperf-trans, 3 speed., 28 LXD, 28 LBXD1, 14, 15, 19, Page Printers, Perforators, Reproductors, Trans-Dist. polar relays, tape winders, cabinets, Collins Receivers, 51J-3, 51J-4, R-388, R-390A, Frequency Shift Converters.

ALLTRONICS-HOWARD CO.
Box 19, Boston, Mass. 02101 Tel: 617-742-0048

160-10M Monitor 3KW Tuner

The DenTron 160-10 MAT Antenna Tuner (Transmatch) will couple a 160-10 meter transmitter to almost any type of antenna system; and when properly adjusted will tune out load reactance and transform the load impedance to 50-70 ohms.

The 160-10 MAT also includes a highly-efficient balun, so antennas fed with open-wire line may be properly tuned to desired frequency. This model may be used with coax-fed antennas as well as end-fed single wire types and features a built-in Wattmeter.

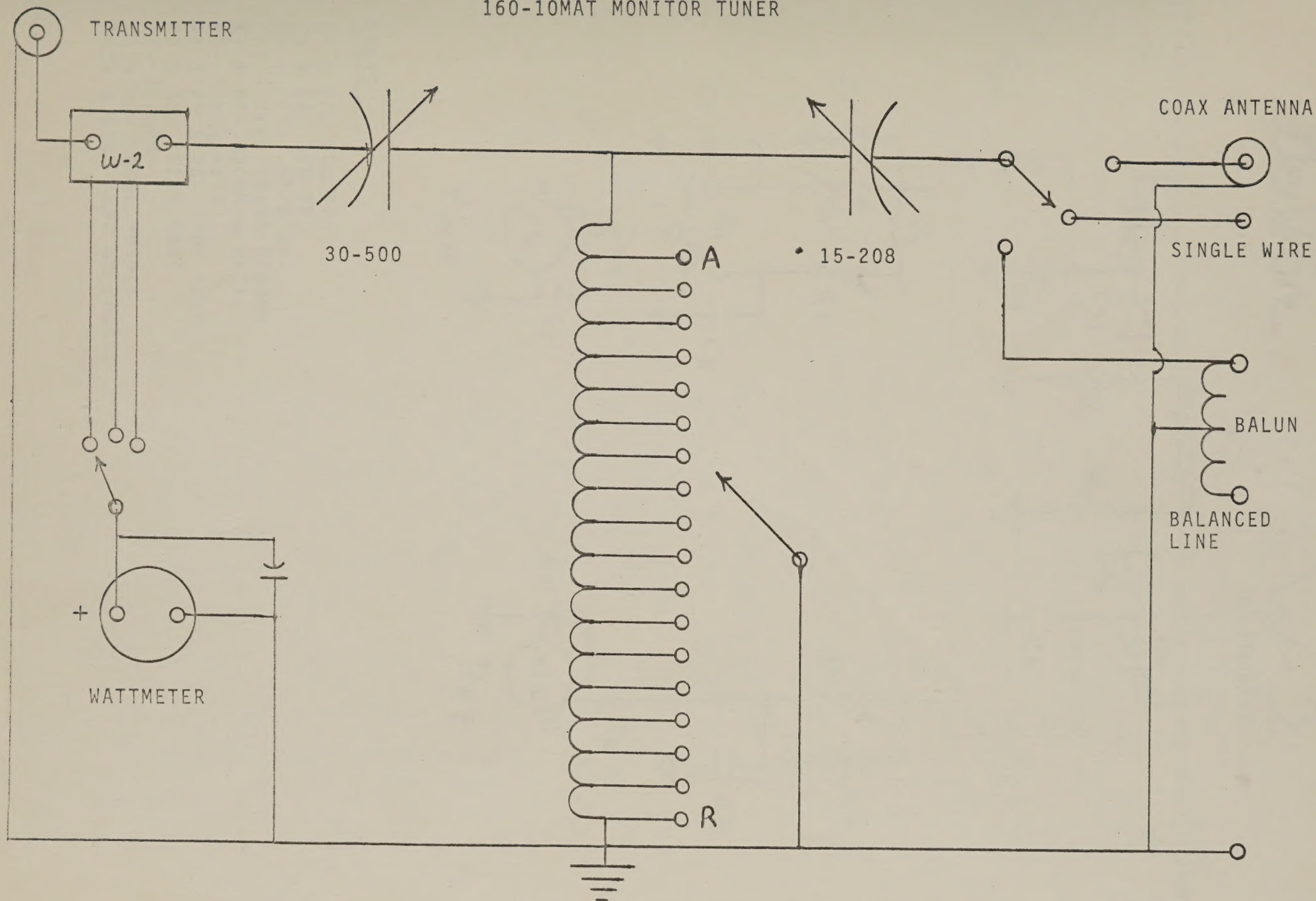
INSTALLATION

1. Hook ground wire on back of tuner. PLEASE NOTE: a good ground is very important when using end-fed wire antennas.
2. From the rear panel marked "transmitter", connect a coax cable to the station transceiver or amplifier.
3. Antenna connections are as follows:
 - a. Coax-fed antennas to coax feedline
 - b. End-fed wire to SINGLE WIRE TERMINAL
 - c. Open wire-fed to balanced feed line terminals

OPERATION

1. Set ANTENNA SELECTOR to proper antenna in use
2. Set TRANSMITTER MATCHING and ANTENNA MATCHING controls to "5"
3. Listen on receiver for maximum band noise while turning induction control for maximum noise. ("A" is highest and "L" lowest frequencies)
4. Feed enough power through the system to get a reading on the Wattmeter in the reflected position.
5. Rotate INDUCTANCE CONTROL for a drop in reflected power reading.
6. Adjust TRANSMITTER MATCHING and ANTENNA MATCHING control for minimum on reflected 200 position.
7. Now apply full power and touch up TRANSMITTER MATCHING control if it is necessary.

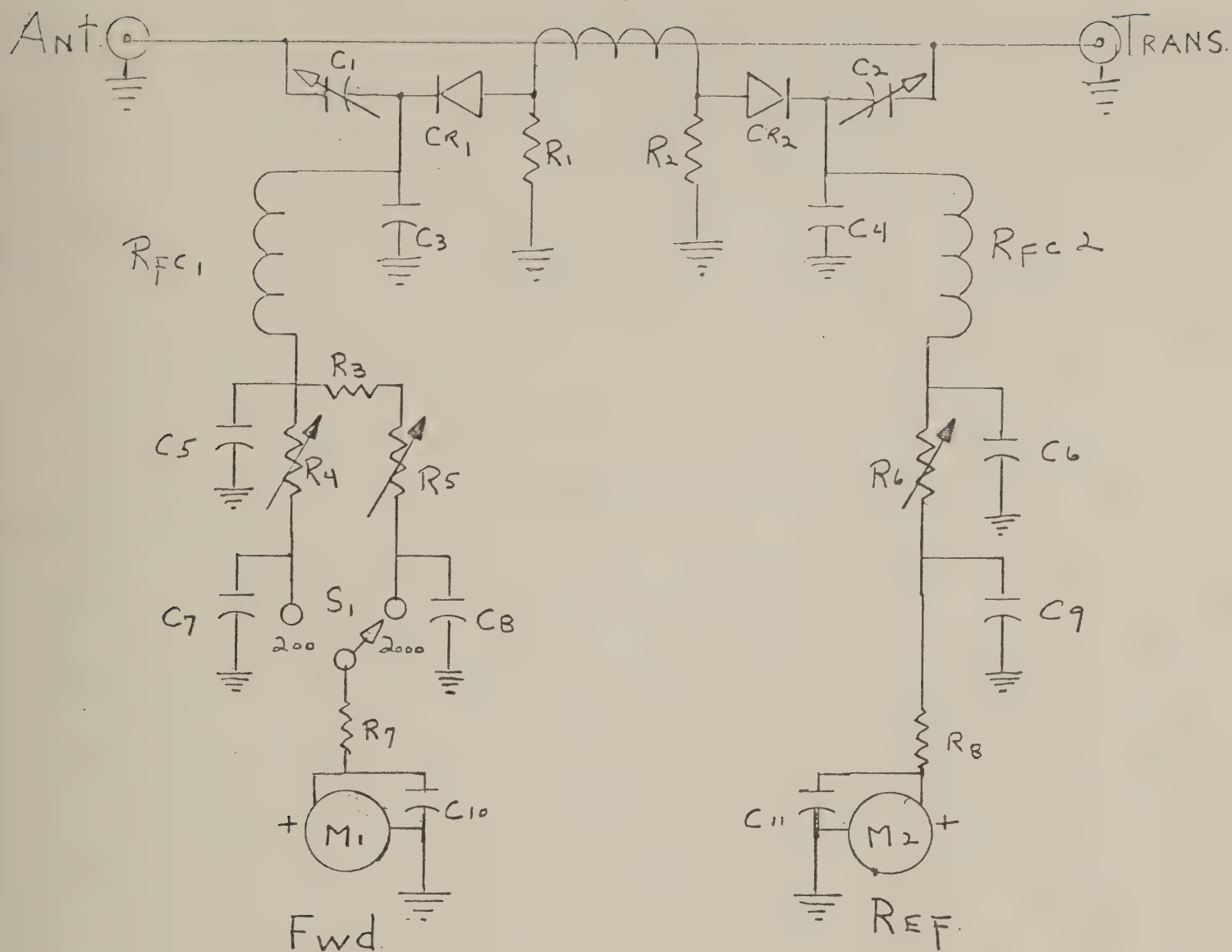
160-10MAT MONITOR TUNER



Dentron

W-2

WATTMETER



PARTS

C1 & C2- 1-8 PF.
 C3 & C4- 220 PF.
 C5 - C11- .01 Disc.
 CR1 - CR2- 1N295 Diodes
 R1 & R2- 430HM $\frac{1}{2}$ Watt
 R3- 50K $\frac{1}{2}$ Watt
 R4 & R5 & R6- 100K Pots
 R7 & R8- 15K $\frac{1}{2}$ Watt
 T1- Toroid
 M1 & M2- 200ua Meters
 RFC1 & RFC2- 390 uh Chokes

MONITOR TUNER

BASIC CONTROL SETTINGS
(into a 50 ohm resistive load)

BAND & FREQ.	TRANS.	INDUCTANCE	ANT.
160- 1.830	6	P	0
75- 3.8	7 $\frac{1}{4}$	I	2 $\frac{1}{4}$
✓ 40- 7.2	5	F	0
20- 14.2	7 $\frac{1}{2}$	B	5
15- 21.3	9	A	7 $\frac{1}{2}$
10- 28.6	9 $\frac{1}{2}$	A	• 1 $\frac{1}{2}$

Limited Warranty

DenTron Radio is proud of the quality and workmanship of its communication equipment. If properly installed and operated in accordance with our instruction manual, it will give reliable performance. DenTron Radio extends to you as an owner of a new DenTron Radio Product the warranty set forth below:

For ninety (90) days from the date of original retail purchase, DENTRON RADIO CO. will either repair or replace, at its option, free of charge, any part or parts found to be defective in material or workmanship. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished.

This warranty will not apply where the unit has been used commercially or when the unit has been used in conjunction with accessories not manufactured by DENTRON RADIO CO.

All implied warranties are limited in duration to ninety (90) days from the date of original retail purchase.

The provisions of this warranty specifically exclude any warranty or remedies for incidental or consequential damages.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

In order to obtain warranty service, send written notification to the following address:

DENTRON RADIO CO.
Attn: Service Department
2100 Enterprise Parkway
Twinsburg, Ohio 44087

Any written notification should include the model number of the unit, the date and place of purchase, and a description of the defective part or condition. Do not return the unit or any parts unless requested to do so by DENTRON RADIO CO.

Although the return of the DENTRON Warranty Registration Card is not a condition precedent to warranty coverage and performance, the purchaser is encouraged to promptly return the Warranty Registration Card upon purchase in order to more easily facilitate the handling of any future service under these warranty provisions.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

MLA-2500



Amplifier in actual operation.

The New MLA-2500 a linear amplifier beyond compromise

DenTron amateur radio products have always been strikingly individual. This is the result, not of a compulsion to be different, but of a dedication to excellence in American craftsmanship. This dedication now extends to one of the world's finest high performance military amateur amplifiers. Luxury styling, however, would not be fully appreciated, without an exceptional power source. The heart of the MLA-2500 is a heavy-duty, self-contained power supply. Compare the MLA-2500. It has the lowest profile of any high performance amplifier in the world. It's modular construction makes it unique, and for the price it is an unprecedented value. Very few things in life are absolutely uncompromising. We are proud to count the DenTron MLA-2500 among them. So will you!

Specifications

- 160 thru 10 meters
- 2000+ watts PEP input on SSB
- 1000 watts DC input on CW, RTTY, or SSTV Continuous Duty
- Variable forced air cooling system
- Self contained continuous duty power supply
- Two EIMAC 8875 external-anode ceramic/metal triodes operating in grounded grid.
- Covers MARS frequencies without modifications
- 50 ohm input and output impedance
- Built in RF watt meter

- 117V or 234 V AC 50-60 hz
- Third order distortion down at least 30 db
- Frequency Range:
 - 1.8MHz (1.8 - 2.5) 3.5MHz (3.4 - 4.6)
 - 7MHz (6.0 - 9.0) 14MHz (11.0 - 16.0)
 - 21MHz (16.0 - 22.0) 28MHz (28.0 - 30.0)
- 40 watts drive for 1 KW DC input
- Rack mounting kit available (standard 19" rack)
- Size: 5½" H x 14" W x 14" D
- Weight: 47 lbs.

DenTron
Radio Co., Inc.

SUPERAMP

Now With FOUR 572-B TUBES

The Newly Improved 160-10L Amplifier



The 160-10L was a rugged amp before, but with our new improvements it's down-right brutal!!

- **NEW** — A larger plate choke for greater Q.
- **NEW** — A tank coil wound on G-10 stock for permanent winding strength.
- **NEW** — Larger encapsulated AC relay for reliable performance in dusty environments.
- **NEW** — All wiring is teflon-coated for high voltage protection.
- **NEW** — Larger cooling fan
- **NEW** — Zener Diode Bias

You know that all the features in the world won't mean a thing if you can't work your amplifier and keep it cool. That's why we added the Zener Diode and a larger fan. With the Zener Diode reducing your idling current and a larger fan increasing convection, the new Superamp has an effective cooling capacity 50% greater than before.

There were loads of critical features skillfully engineered into the original 160-10L's that we just couldn't improve upon; like the three relays (1. AC Power, 2. Antenna Change-Over, 3. Bias and Cooling Speed), and the heavy-duty power supply that lets you loaf along at 1 KW input on SSTV, RTTY, or CW and 2000 PEP SSB, plus the controls that are still big and easy to reach so you can make your tuning adjustments that much faster. Basically, the Superamp is just that . . . A SUPER AMP! Work the world and work it right. Order yours today from your nearest dealer.

SPECIFICATIONS

- Size: 7¼" H x 14½" W x 14" D
- Weight: 43 lbs.
- Frequency Range:
 - 1.8MHz (1.8-2.5) 3.5MHz (3.4-4.6)
 - 7MHz (6.0-9.0) 14MHz (11.0-16.0)
 - 21MHz (16.0-22.0) 28MHz (28.0-30.0)
- Power Input:
 - SSB 2000 PEP
 - CW 1000 watt DC Continuous
 - SSTV 1000 watt DC input 25 minute continuous
 - RTTY 1000 watt DC input 25 minute continuous
 - TUNE 1000 watt DC input 5 minute continuous
- Output Impedance:
 - 50-75 ohms Pi network wide range
 - VSWR not to exceed 2 to 1
- Third-order Distortion: Down at least 30 db.
- Meter Selector Switch, Plate Voltage, Plate Current

Dentron
Radio Co., Inc.

- Built-in antenna change-over relay
- Dual-speed Cooling System
- AC Input Source 110V or 220V AC, 50-60 Hz
- Automatic Circuit Breaker Protection
- 160 thru 10 meters
- 2000 watts PEP on SSB
- 1000 watts DC on CW, RTTY or SSTV
- "On Demand" Variable forced air cooling system
- Self-contained continuous duty power supply
- 4-572B Triodes in Grounded Grid mounted in cooling chamber
- Compact, low-profile, solid one-piece cabinet, tube cooling chamber eliminates need for perforated cabinet
- Covers MARS frequencies without modifications
- Broadbanded input and output circuit
- 70 watt drive for maximum legal limit

The 160-10AT Super Tuner



The only Tuner for 160 thru 10 meters that will accept all feed lines

It doesn't matter whether you have balanced line, coax cable, random or long wire antennas, the DenTron SuperTuner will match everything from 10-160 meters. The design and engineering for compatibility with today's transmitters and transceivers, plus the SuperTuner's ability to match various antenna impedances to your transmitter explains why the SuperTuner is outselling any other tuner on the market. When you invest money in Ham Radio Equipment, you expect the return of efficient trouble-free operation. You'll get that and more from the DenTron SuperTuner - it's a "sound" investment!

- **New Extra Heavy Duty Inductor Switch**

- Continuous tuning 1.8-30 mc
- Antenna inputs:
 - a. coax unbalanced — SO-239
 - b. random wire - ceramic feed-thru
 - c. balanced line ceramic feed-thru, tuned feeders 75-660 ohm
- Tapped inductor #12 guage wire
- Black wrinkle finish
- Handles 500 watts DC - 1000 PEP
- Transmatch circuit:
 - a. tune out load reactance
 - b. transform load impedance to 50-75 ohms.
- Built-in heavy-duty Balun; 3½" diam. x 3" H. - 2 core
- Harmonic Attenuation
- Ceramic Rotary Switch - 12 position
- Capacitor spacing 3000 volt
- 10" W. 6¼" H. 10" D. Weight: 12 lbs.

DenTron
Radio Co., Inc.

2100 Enterprise Parkway / Twinsburg, Ohio 44087 / (216) 425-3173 / All DenTron Products are made in the USA

3 KW SuperTuner Performance

WITH

built-in Wattmeter and front-panel antenna switch

the monitor tuner

- Built-in Wattmeter
- Continuous tuning 1.7-30 mc
- Antenna inputs: Front Panel Switchable
 - a. coax unbalanced - SO-239
 - b. random wire - ceramic feed thru
 - c. balanced line - ceramic feed thru, tuned feeders 75-660 ohm
- Tapped inductor #12 guage wire
- #8 guage HF Coil
- Black wrinkle finish
- Handles 3KW PEP
- Transmatch circuit:
 - a. tune out load reactance
 - b. transforms load impedance to 50-75 ohms
- Built-in heavy-duty Balun; 3½" diam. x 3" H. 3 core
- Harmonic Attenuation
- Ceramic Rotary Switch 18 position, 12 amp capacity
- Capacitor spacing 6000 volt
- 13" W x 8½" H. x 15" D. 24 lbs.



160-10 Monitor Tuner

You can't imagine the ease of operation when you are working a tuner with a built-in wattmeter plus front panel switchable antenna inputs. No more bouncing back and forth between pieces of equipment, everything is right there in front of you. But that's not all that's in front of you. Behind that front panel are the same guts and stamina that are engineered into our 3KW SuperTuner model. The Monitor Tuner gives you the ability to match everything from 10-160 meters whether you have balanced line, coax cable, random or long wire. If you want more than your present tuner can give, upgrade! Order a DenTron Monitor Tuner from your dealer today.

Now you can read both forward and reflected watts at the same time

the watt meter



Constant switching and guesswork tends to take the fun out of being a Ham. Don't cut down on the fun of Ham Radio, get yourself a DenTron dual in-line wattmeter. By monitoring both forward and reflected wattage simultaneously, you'll add a dimension of perfection to your station that will make you wonder how you ever got along without it. DenTron Radio Products, dedicated to making amateur radio more fun.

- Forward watt scale - 2000 or 200
- Reflected watt scale - 200 watts
- Low insertion loss
- Frequency range: 1.7-30 MHz
- Meter accuracy $\pm 5\%$
- Sensor Box may be extended 4 ft.
- Has 2 SO-239 Connectors
- Sensor Box - 4" W. x 2½" H. x 2½" D.
- 7" W. x 3½" H. x 6" D.
- Weight 5 lbs.

THE SKY OPENERS

from

DenTron

Super Super Tuner™ 160-10AT 3KW

Designed and engineered to be compatible with the full-power highly efficient modern amplifiers now available to the amateur.

- Continuous tuning 1.7—30 mc
- Antenna inputs:
 - a. coax unbalanced—SO—239
 - b. random wire — ceramic feed thru
 - c. balanced line — ceramic feed thru, tuned feeders 75—660 ohm.
- 2 tapped inductors - #12 guage wire & #8 guage wire
- Black Wrinkle finish
- Handles 3 KW PEP
- Transmatch circuit:
 - a. tune out load reactance
 - b. transform load impedance to 50-75 ohm
- Built-in heavy duty Balun; 3½" diameter x 3" H. 3 Core
- Harmonic attenuation
- Ceramic rotary switch 18 position 12 amp capacity
- Capacitor spacing 6000 volt
- 13" W x 8½" H x 15" D. 24 pounds



160 XV Top Bander™

160 meters is only a step away from 80 with this remarkable DenTron 160 meter transverter. Specifically designed to bring simple low cost 160 meter capability to any amateur station currently equipped for 80 meter CW, SSB, or AM operation. No modification of your existing equipment is required. Just "plug in and play" and you're on 160 meters with 100 watts transmit power and a super sensitive receiver.

- Full 1.8—2.0 MHz coverage
- Receiver sensitivity .35 microvolts for 10 db ratio
- 5 watts of drive ample for full input
- Built in power supply for 110/50/60 Hz
- 6146B Final tube
- Matches 50—70 ohm antenna
- Input drive overload protection (swamping circuit)
- 3.8 to 4.0 MHz input (75 meter band) SSB, CW, AM
- Heavy steel construction of cabinet and chassis
- Printed circuit design
- Transverter—bypass control circuit
- W 12", H 6¼", D 10". Wt. 18 lbs.



80-10 AT Tuner™

Here's an antenna tuner for 80 through 10 meters, handles 500 PEP and matches your 52 ohm transceiver to a random wire antenna. The ideal tuner for the Ham on the move.

- Continuous tuning 3.2—30 mc
- "L" network
- Ceramic 12 position rotary switch
- SO-239 receptional to transmitter
- Random wire tuner
- 3000 volt capacitor spacing
- Tapped inductor
- Ceramic antenna feed thru
- 7" W. 5" H. 8" D., Weight: 5 pounds.



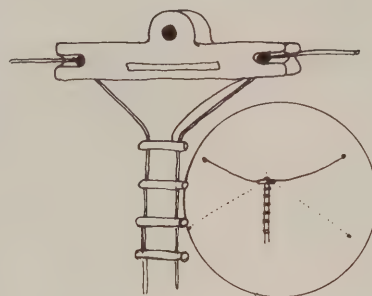
Skyclaw

160-40V

A tunable monoband high performance vertical antenna, designed for 40, 80, 160 meter operation. SKYCLAW gives you the following spectrum coverage:

BAND (Meters)	BANDWIDTH (kHz)
160	50
80	200
40	entire band

Tuning is easy and reliable. Rugged construction assures that this 25 foot self-supporting unit is weatherproof and survives nicely in 100 mph winds. Handles full legal power limit.



All Band Doublet

This All Band Doublet or inverted Type Antenna covers 160 thru 10 meters. It has a total length of 130 feet (14 ga. stranded copper) although it may be made shorter if necessary. This tuned Doublet is center fed through 100 feet of 470 ohm PVC covered balanced transmission line. The assembly is complete. Add rope to the ends and pull up into position. Tune with the DenTron Super Tuner and you're on 10 through 160 meters with one antenna!

DenTron

Radio Co., Inc.
2100 Enterprise Pkwy.
Twinsburg, Ohio 44087
(216)425-3173

*Dedicated to making
amateur radio more fun.*

Trim-Tenna

TT 20

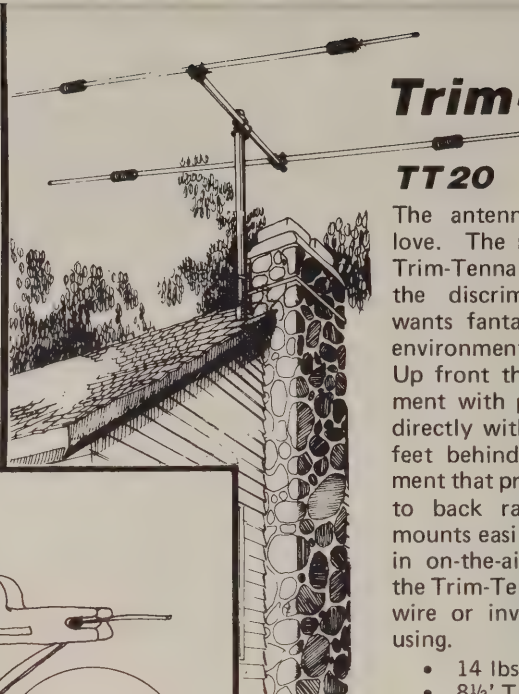
The antenna your neighbors will love. The new DenTron 20 meter Trim-Tenna beam is designed for the discriminating amateur who wants fantastic performance in an environmentally appealing beam. Up front there is a 16' driven element with precision Hy-Q coils fed directly with 52 ohm coax. And 16 feet behind is a 17' reflector element that provides up to 15 db front to back ratio. The Trim-Tenna mounts easily and what a difference in on-the-air performance between the Trim-Tenna and that dipole, long wire or inverted Vee you've been using.

- 14 lbs.
- 8½' Turning Radius
- 4 db forward gain over dipole
- 15 db front to back ratio
- 20 db front to side ratio

BEAMS ALSO AVAILABLE

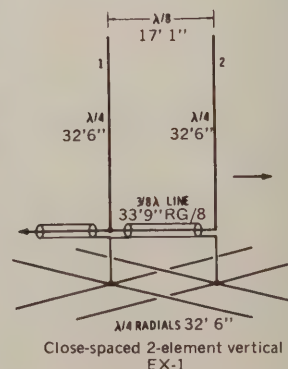
2 Element Full Size Beams
20MB 20 Meter Beam
15-B 15 Meter Beam
10-B 10 Meter Beam

5½ db gain over dipole • F/B ratio 18-20 db • F/S ratio over 20 db • 50 ohm feed point impedance • split driven element



EX-1

The DenTron EX-1 Vertical Antenna is designed for the performance minded antenna experimenter. The EX-1 is a full 40 meter, 1/4 wave, 33', self-supporting vertical. It's the ideal vertical for phasing.



One example of EX-1 as phased 40 meter verticals.

Skymaster

4V

A fully developed and tested 27 foot vertical antenna covers entire 10, 15, 20, and 40 meter bands using only one cleverly applied wave trap. A full 1/4 wave antenna on 20 meters. Constructed of heavy seamless aluminum with a factory tuned and sealed HQ Trap. SKYMASTER is weatherproof, withstands winds up to 80 mph, handles 2 KW power level and is for ground, roof, or tower mounting. Radials included.

80-4VR

Our 80 m resonator for top mounting on the SKYMASTER. It can be set anywhere in 75 to 80 meter band with 100 Khz band width.



Price List

EFFECTIVE DECEMBER 8, 1976

New

EQUIPMENT	LIST
MLA 2500 Amplifier	\$799.50
160-10L / 572 Amplifier	574.50
160 XV Transverter "Top Bander"	199.50
160 XV MARS Dual Band	229.50
160-10AT Super Tuner	129.50
160-10AT 3KW Super Super Tuner	229.50
160-10M Monitor 3KW Tuner	299.50
80-10AT 80-10 Meter Tuner	59.50
W-2 Wattmeter	99.50
ACF Brute Force AC Line Filter 115/220V ac	24.50
ANTENNAS	
Trim Tenna '20' 20 Meter Beam	129.50
160-40 V Vertical Antenna "Sky Claw"	79.50
4 V Vertical Antenna "Sky Master" (40 through 10 Meters)	84.50
80-4VR 80 Meter Resonator for 4V	29.50
EX-1 Vertical Experimenter vertical full ¼ wave 40 through 10 meter self-supporting mono vertical	59.50
160M Mobil Antenna "Mobil Top Bander" (160 meters)	59.50
Center Feed All Band Doublet Antenna	24.50
BEAMS	
2 Element Full Size Beams	
20MB 20 Meter Beam	119.50
15-B 15 Meter Band	109.50
10-B 10 Meter Beam	99.50
ACCESSORIES	
100 ft. 470 Ohm Ladder Line	12.00
100 ft. 2KW 300 Transmission Line	19.50
1 Kilowatt Balun 4:1 Chassis Mt.	27.50
3 Kilowatt Balun 4:1 Chassis Mt.	29.50
TO BE ANNOUNCED	
DTR-1 Transceiver	Estimated 549.50
DTR-2 Transceiver	Estimated 949.50

Look what others are saying about Dentron Radio

DENTRON 160-V (SKYCLAW) ANTENNA

"No, no," I said, "I want to buy a DenTron SkyClaw and you're not going to talk me out of it!" The above quote is from a portion of a conversation this writer had with another amateur at the Tropical Hamboree in Miami, Florida, in January, 1976. Who was this person trying to dissuade me from making an antenna purchase? Was it fellow 160-meter enthusiast Gene, W4BRB, who was in attendance at the hamfest? Nope, it was an amateur I had worked previously on 160 using my

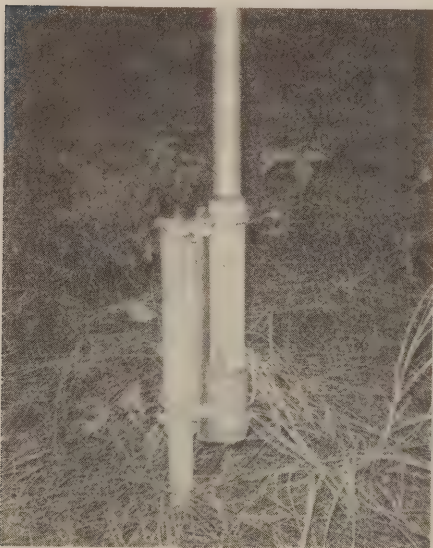


Fig. 1 — The base of the DenTron SkyClaw antenna.

base-loaded Hy-Tower but had never met before in person. In fact, it was none other than Dennis Had, K8KXK, who is DenTron Radio. *Whoa!* What gives here? How good can a product be if the manufacturer is discouraging a sale? Well, let me set that record straight at the outset — Dennis knew that my primary operating interest is DX and that for 20 meters I had a 90-foot tower topped by a 4-element Yagi. He reasoned that I wouldn't be satisfied with a 27-foot vertical antenna on 160 meters and besides, I could always load my tower for use on 160. Well, that's certainly a refreshing attitude, a manufacturer that wants to see you purchase what you *need*, not just what he has to sell! Nevertheless, I persisted. The deal was made and in a few short days up drove a UPS truck containing a short brown carton.

But I'm getting a little ahead of the story; why *did* I want a 27-foot vertical for 160? It's quite simple really: (1) My Hy-Tower had been taken down earlier to make way for some additional construction at my home, (2) I was itching to get back on 160 meters before the season was over, and (3) since I was still recovering from the effects of recent surgery I didn't want to do any extensive antenna work.

In short, what was desired for my particular situation was a simple antenna that took up practically no space, could be easily erected by one person and would work reasonably well. The writer is pleased to report that the DenTron SkyClaw filled the bill on all of those counts. But again, that's getting ahead of the story.

At this point I am forced to admit a personal foible; I usually read the instructions for a piece of ham gear as a last resort and just jump right in and turn the knob or screw that looks right. Oh yes, of course, that's the wrong thing to do; and I have (or should have) learned my lesson long ago. But it's a habit, something like tailending a pileup — not the best thing to do but hard to stop doing!

In the case of the DenTron antenna the writer decided to make an exception and study the instructions thoroughly before proceeding. This approach turned out to be a little confusing because several of the steps concerning assembly as outlined in the instructions were found to be unnecessary. Major parts of the antenna were preassembled as they came tumbling from the carton which makes assembly instructions for *these* parts superfluous. The best approach, then, seems to be to lay out all the parts on a dry, flat surface, perhaps the driveway at your QTH. Then, compare carefully the exploded diagram of the antenna on the last page of the instruction sheet with what you actually have. It should quickly become obvious what remains to be done to complete assembly.

As you can see from Fig. 1, the author ground-mounted the antenna. A three-foot length of water pipe was hammered into the ground until only about 12 inches above ground level remained. In addition, a copper ground rod (8-feet long) was driven into the earth to provide a ground connection, the water pipe being only for mechanical support. In order to permit getting on the air quickly with minimum effort, no system of radials was used, only the grounding as described above.

The antenna uses a B&W 3031 coil for loading. The coil is contained within a clear

plastic cover that can be slid up for making tap adjustments. A clip lead (not provided) is handy when searching for the correct spot to tap the coil. In this case, the first spot tried by the writer (selected at random) was eight turns down from the top of the coil. Amazingly, when the wattmeter was installed in the coax feed at the base of the antenna, excitation applied, and the SWR calculated, the antenna turned out to be matched for 1807 kHz. Never being one to argue with success, whether accidental or not, I quickly removed the clip lead and soldered the tap into place at that point. Forward and reflected power measurements were made with a wattmeter over the portion of the band of my immediate interest. The calculated SWR ranged from approximately 1.5 at 1800 kHz to 2.6 at 1860 kHz.

In the time remaining before darkness fell and the first opportunity to try the antenna out on the air arose, the coil cover and coax fitting were waterproofed with a silicone rubber compound. Although this step is recommended in the instructions, you must furnish your own sealant. Total elapsed time for assembly was only 1-1/2 hours; not bad if the darn thing worked! Well, to make a long story short, during a ninety-day period after the antenna was installed and pressed into service, 25 states and 15 countries were worked on 160. Best DX worked was GW4, not bad at all for a 27-foot-tall antenna, no radials and a 50-watt power level. Not bad at all!

Of course everyone realizes that the antenna will not outperform the larger antenna used for operation on 160. And, depending on local environment, such as ground conductivity, it may work differently at your own location. But, considering its cost, small physical size and ease of assembly and installation, it can give a good account of itself and should help to expand the rising popularity that 160 meters is now enjoying. — Larry E. Price, W4RA

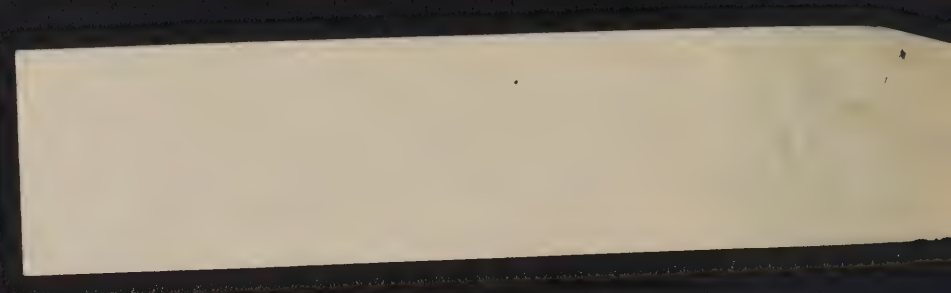
Reprinted
from

QST

November, 1976

Dear Customer:

All Dentron Super Amplifiers, 160-10 L, are now being manufactured exclusively with Dentron 572 B tubes. The new retail price is \$574.50.



NEW 160 thru 10 meters CONTINUOUS DUTY AMPLIFIER

the **SUPERAMP**TM from *DenTron*

How would you like to be roaring into any shack on the globe? Now you can do it with the advanced 160-10L Amplifier from DenTron. The most critical features you are looking for have been skillfully engineered into this American-made amplifier.

The 160-10L has **FOUR** 811-A tubes with full-cooling, continuous-duty cycle, that make it capable of running 2000 watts P.E.P. input in your SSB mode. In addition, you'll get the built-in value of **THREE** relays: 1. AC power; 2. Antenna Change Over; 3. Bias and cooling speed. But these features are only the beginning. The real nucleus of the 160-10L is its heavy-duty power supply. Pride yourself in operating an amp that can loaf along at 1 KW input on SSTV, RTTY, or CW and 2000 PEP SSB. The ruggedness of the 160-10L lets you enjoy the full benefit of operating far beyond normal working conditions.

Even the controls have been designed for ease of operation. They're up front and plenty big so you can get to them in a hurry and make your tuning adjustments that much faster.

So if you want to work the world and work it right, the 160-10L is for you. It's a **SUPERAMP**! Order yours today from DenTron Radio or your nearest dealer.



160-10L SPECIFICATIONS

Size: 7 1/4" H. x 14 1/2" W. x 14" D.

Weight: 43 lbs.

Frequency Range:

1.8MHz (1.8-2.5) 3.5 MHz (3.4-4.6)
7 MHz (6.0-9.0) 14 MHz (11.0-16.0)
21 MHz (16.0-22.0) 28 MHz (28.0-30.0)

Power Input:

SSB 2000 P.E.P.
CW 1000 watt DC Continuous
SSTV 1000 watt DC input 25 minute continuous
RTTY 1000 watt DC input 25 minute continuous
TUNE 1000 watt DC input 15 minute continuous

Output Impedance:

50-75 ohms Pi network wide range
VSWR not to exceed 2 to 1

Third-order Distortion: Down at least 30 db.

Meter Selector Switch, Plate Voltage, Plate Current

Built-in Antenna change-over relay

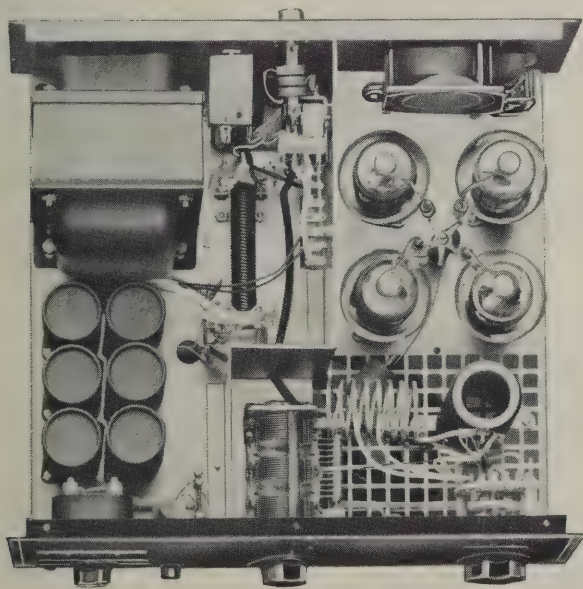
Dual-speed Cooling System

AC Input Source 110V or 220V AC, 50-60 Hz

Automatic Circuit Breaker Protection

160-10L FEATURES

- 160 thru 10 meters
- 2000 watts P.E.P. on SSB
- 1000 watts DC on CW, RTTY or SSTV
- "On Demand" Variable forced air cooling system
- Self contained continuous duty power supply
- 4- 811A Triodes in Grounded Grid mounted in cooling chamber
- Compact, low-profile, solid, one-piece cabinet, tube cooling chamber eliminates need for perforated cabinet
- Covers MARS Frequencies without modifications
- Broadbanded input and output circuit
- 70 watt drive for maximum legal limit



DenTron
Radio Co., Inc.

2100 Enterprise Parkway
Twinsburg, Ohio 44087
(216) 425-3173

Match everything from 160 to 10 meters with DenTron's Super Tuners

These tuners are the only tuners on the market that will match everything between 160 and 10 meters. Whether you have balanced line, coax cable, random or long wire, the DenTron Super Tuners will match the Antenna Impedance to your transmitter. Designed and engineered for compatibility with today's transmitters, transceivers and full-power amplifiers, these tuners are your best value on the market. That's our opinion, but check these specifications and see for yourself.

160-10 MAT MONITOR TUNER™

- Built-in Wattmeter
- Continuous tuning 1.7-30 mc
- Antenna inputs: Front Panel Switchable
 - a. coax unbalanced — SO — 239
 - b. random wire — ceramic feed thru
 - c. balanced line — ceramic feed thru, tuned feeders 75—660 ohm.
- Tapped inductor #12 guage wire
- #8 guage HF Coil
- Black wrinkle finish
- Handles 3 KW PEP
- Transmatch circuit:
 - a. tune out load reactance
 - b. transform load impedance to 50-75 ohms
- Built-in heavy-duty Balun; 3½" diameter x 3"H. 3 Core
- Harmonic Attenuation
- Ceramic Rotary Switch 18 position - 12 amp capacity
- Capacitor spacing 6000 volt
- 13"W. x 8½"H. x 15"D. 24 lbs.



160-10 MAT Monitor Tuner

160-10AT SUPER TUNER™

- Continuous tuning 1.7-30 mc
- Antenna inputs:
 - a. coax unbalanced — SO — 239
 - b. random wire — ceramic feed thru
 - c. balanced line ceramic feed thru, tuned feeders 75-660 ohm
- Tapped inductor #12 guage wire
- Black wrinkle finish
- Handles 500 watts DC - 1000 PEP
- Transmatch circuit:
 - a. tune out load reactance
 - b. transform load impedance to 50-75 ohms.
- Built-in heavy-duty Balun; 3½" diameter x 3" H. 2 Core
- Harmonic Attenuation
- Ceramic Rotary Switch 12 position
- Capacitor spacing 3000 volt
- 10" W. 6¼" H. 10" D. Weight: 12 lbs.



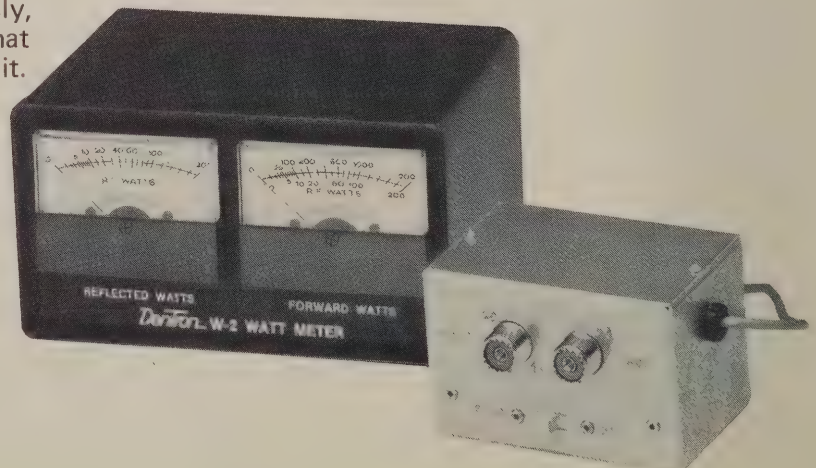
160-10AT Super Tuner

Read reflected and forward watts at the same time

Tired of constant switching and guesswork? Upgrade! Get the DenTron Dual, in-line wattmeter. By monitoring both forward and reflected wattage simultaneously, you'll add a dimension of perfection to your station that will make you wonder how you ever got along without it.

W-2 WATTMETER™

- 7"W. x 3½"H. x 6"D.
- Sensor Box - 4"W. x 2½"H. x 2½"D.
- Has 2 SO—239 Connectors
- Forward watt scale - 2000 or 200
- Reflected watt scale - 200 watts
- Low insertion loss
- Sensor Box may be extended 4 feet
- Meter accuracy ± 5%
- Weight 5 lbs.



DenTron

Radio Co., Inc. / 2100 Enterprise Parkway / Twinsburg, Ohio 44087 / (216) 425-3173

THE SKY OPENERS

from

DenTron

Super Super Tuner™ 160-10AT 3KW

Designed and engineered to be compatible with the full-power highly efficient modern amplifiers now available to the amateur.

- Continuous tuning 1.7—30 mc
- Antenna inputs:
 - a. coax unbalanced—SO—239
 - b. random wire — ceramic feed thru
 - c. balanced line — ceramic feed thru, tuned feeders 75—660 ohm.
- 2 tapped inductors - #12 guage wire & #8 guage wire
- Black Wrinkle finish
- Handles 3 KW PEP
- Transmatch circuit:
 - a. tune out load reactance
 - b. transform load impedance to 50-75 ohm
- Built-in heavy duty Balun; 3½" diameter x 3" H. 3 Core
- Harmonic attenuation
- Ceramic rotary switch 18 position 12 amp capacity
- Capacitor spacing 6000 volt
- 13" W x 8½" H x 15" D. 24 pounds

229.50



160 XV Top Bander™

160 meters is only a step away from 80 with this remarkable DenTron 160 meter transverter. Specifically designed to bring simple low cost 160 meter capability to any amateur station currently equipped for 80 meter CW, SSB, or AM operation. No modification of your existing equipment is required. Just "plug in and play" and you're on 160 meters with 100 watts transmit power and a super sensitive receiver.

- Full 1.8—2.0 MHz coverage
- Receiver sensitivity .35 microvolts for 10 db ratio
- 5 watts of drive ample for full input
- Built in power supply for 110/50/60 Hz
- 6146B Final tube
- Matches 50—70 ohm antenna
- Input drive overload protection (swamping circuit)
- 3.8 to 4.0 MHz input (75 meter band) SSB, CW, AM
- Heavy steel construction of cabinet and chassis
- Printed circuit design
- Transverter—bypass control circuit
- W 12", H 6¼", D 10". Wt. 18 lbs.



199.50

80-10 AT Tuner™

Here's an antenna tuner for 80 through 10 meters, handles 500 PEP and matches your 52 ohm transceiver to a random wire antenna. The ideal tuner for the Ham on the move.

- Continuous tuning 3.2—30 mc
- "L" network
- Ceramic 12 position rotary switch
- SO-239 receptional to transmitter
- Random wire tuner
- 3000 volt capacitor spacing
- Tapped inductor
- Ceramic antenna feed thru
- 7" W. 5" H. 8" D., Weight: 5 pounds.

59.50



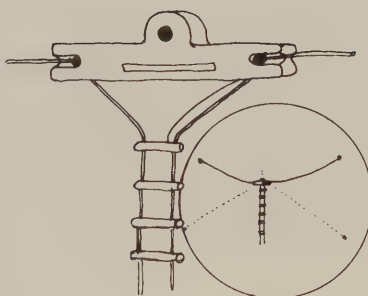
Skyclaw

160-40V

A tunable monoband high performance vertical antenna, designed for 40, 80, 160 meter operation. SKYCLAW gives you the following spectrum coverage:

BAND (Meters)	BANDWIDTH (kHz)
160	50
80	200
40	entire band

Tuning is easy and reliable. Rugged construction assures that this 25 foot self-supporting unit is weatherproof and survives nicely in 100 mph winds. Handles full legal power limit.



All Band Doublet

This All Band Doublet or inverted Type Antenna covers 160 thru 10 meters. It has a total length of 130 feet (14 ga. stranded copper) although it may be made shorter if necessary. This tuned Doublet is center fed through 100 feet of 470 ohm PVC covered balanced transmission line. The assembly is complete. Add rope to the ends and pull up into position. Tune with the DenTron Super Tuner and you're on 10 through 160 meters with one antenna!

DenTron

Radio Co., Inc.
2100 Enterprise Pkwy.
Twinsburg, Ohio 44087
(216) 425-3173

*Dedicated to making
amateur radio more fun.*

Trim-Tenna

TT20

The antenna your neighbors will love. The new DenTron 20 meter Trim-Tenna beam is designed for the discriminating amateur who wants fantastic performance in an environmentally appealing beam. Up front there is a 16' driven element with precision Hy-Q coils fed directly with 52 ohm coax. And 17 feet behind is a 17' reflector element that provides up to 15 db front to back ratio. The Trim-Tenna mounts easily and what a difference in on-the-air performance between the Trim-Tenna and that dipole, long wire or inverted Vee you've been using.

- 14 lbs.
- 8½' Turning Radius
- 4 db forward gain over dipole
- 15 db front to back ratio
- 20 db front to side ratio

BEAMS ALSO AVAILABLE

- 2 Element Full Size Beams
- 20MB 20 Meter Beam
- 15-B 15 Meter Beam
- 10-B 10 Meter Beam

5½ db gain over dipole • F/B ratio 18-20 db • F/S ratio over 20 db • 50 ohm feed point impedance • split dipole driven element



Skymaster

4V

A fully developed and tested 27 foot vertical antenna covers entire 10, 15, 20, and 40 meter bands using only one cleverly applied wave trap. A full 1/4 wave antenna on 20 meters. Constructed of heavy seamless aluminum with a factory tuned and sealed HQ Trap. SKYMASTER is weatherproof, withstands winds up to 80 mph, handles 2 KW power level and is for ground, roof, or tower mounting. Radials included.

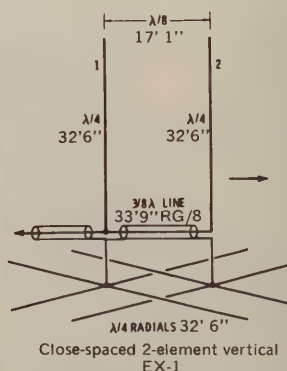
80-4VR

Our 80 m resonator for top mounting on the SKYMASTER. It can be set anywhere in 75 to 80 meter band with 100 Khz band width.



EX-1

The DenTron EX-1 Vertical Antenna is designed for the performance minded antenna experimenter. The EX-1 is a full 40 meter, 1/4 wave, 33', self-supporting vertical. It's the ideal vertical for phasing.



One example of EX-1 as phased 40 meter verticals.





2100 Enterprise Pkwy., Twinsburg, Ohio 44087 (216) 425-3173

PRICE LIST
EFFECTIVE OCTOBER 1, 1976

<u>EQUIPMENT</u>	<u>LIST</u>
160-10L Amplifier	\$ 499.50
160-10L/572B Amplifier	574.50
160 XV Transverter "TopBander"	199.50
160 XV MARS Dual Band	229.50
160-10AT Super Tuner	129.50
160-10AT 3KW Super Super Tuner	229.50
160-10M Monitor 3KW Tuner	299.50
80-10AT 80-10 Meter Tuner	59.50
W-2 Wattmeter	99.50
ACF 1 Brute Force AC Line Filter 115/220V ac	24.50

<u>ANTENNAS</u>	
Trim Tenna '20' 20 Meter Beam	129.50
160-40 V Vertical Antenna "Sky Claw"	79.50
4 V Vertical Antenna "Sky Master" (40 thru 10 Meters)	84.50
80-4VR 80 Meter Resonator for 4V	29.50
EX-1 Vertical Experimenter vertical full 1/4 wave 40 thru 10 meter self-supporting mono vertical	59.50
160M Mobil Antenna "Mobil Top Bander" (160 meters)	59.50
Center Feed All Band Doublet Antenna	24.50

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3 Kilowatt Balun 4:1 Chassis Mt.	29.50

<u>TO BE ANNOUNCED</u>	
DTR-1 Transceiver	Estimated 549.50
DTR-2 Transceiver	Estimated 949.50

Wash. Post
Nov. 10, 1964

WASHINGTON, Nov. 10 (AP) — The Senate today passed a bill to create a new federal agency to coordinate the nation's health care programs.

The bill, which was introduced by Sen. Hubert H. Humphrey (D-Minn.), would create the Department of Health, Education and Welfare.

The bill would combine the functions of the Department of Health, Education and Welfare, the Department of Social Security, and the Department of Labor.

The bill would also transfer the functions of the Federal Reserve Board to the new department.

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Dentron Radio Co., Inc.

2100 Enterprise Parkway • Twinsburg, Ohio 44087 • (216) 425-3173

Dedicated to Making Amateur Radio More Fun

"Judge not, that you be not judged . . . and the measure you give will be the measure you get. So whatever you wish that men would do to you, do so to them . . ."

Matthew 7:1-2, 12

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